

Appl. No. 10/782,290
Reply to Office Action of July 10, 2006

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Remarks/Arguments

In the specification at page 1 line 1, the title has been amended to address the Examiner's objection. The title is amended to read "Device for determining a glucose concentration in a tissue fluid". As amended, the title of the substitute specification matches the preamble of claims 1, 17, 18 and 26 and is believed to be adequately descriptive and includes no new matter. Withdrawal of the objection to the title is respectfully requested.

Claims 1-26 are pending in the present application. Claims 1, 17, 18 and 26 are independent claims.

Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph as being indefinite. The rejection is traversed in light of the amendments to claims 1-26. Support for the amendments is found in the specification, particularly at page 2 lines 1-4, page 5 lines 10-13, page 10 lines 8-20, page 11 lines 1-3, and Figure 1. No new matter is added by virtue of the amendments. The rejection sets forth several points, which will be addressed below.

Amendments have been made to claims 1-4, 7-8, 17, and 26 providing adequate antecedent basis in the claims.

Claims 1-26 are amended to term "an arrangement" with "a device".

Claims 1 and 18 have been amended to change the phrase "after the microdialysis probe" to "downstream of the microdialysis probe".

Claims 1 has been amended to remove the phrase "the cell being formed to detect measurement signals that correlate with the glucose content of the dialysate". Rather, recited term "measuring cell" has been amended to read "dialysate glucose content measuring cell". As such, the claim positively recites what the cell does.

Claim 16 has been amended to depend from claim 7. As such, claims 12 and 16 are no longer duplicates.

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Further, claims 12, 13, 15, 16, and 25 are amended to change the phrase "digitally operated controller" to "digital controller".

Claims 11, 17, 24, and 26 have been amended to change the phrase "different glucose contents" to "different glucose concentrations".

Additional amendments include those to claim 26, which remove the phrases "the transport unit being formed" and the "flow mixer being formed".

In light of the above amendments, the claims are believed to be sufficiently definite for purposes of 35 U.S.C. 112, second paragraph. Reconsideration of the rejection in light of the amendments, leading to withdrawal of the rejection and allowance of the claims is respectfully requested.

Reconsideration of the rejection of claims 1-26 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,091,976 to Pfeiffer et al. in light of the following remarks is respectfully requested.

Claims 1 and 18 are amended to recite "a control device, which adjusts the content of glucose in the perfusate upstream of the microdialysis probe". Claims 17 and 26 are amended to recite a control device that acts "as an adjuster to regulate the content of glucose in the perfusate upstream of the microdialysis probe". Support for the amendments is found in the specification at page 12 lines 3-8, and Figure 1. No new matter is added by virtue of the amendment to the claims.

The rejection proffers that it would have been obvious "to adjust the "content" of glucose by adjusting the flow rate as taught by Pfeiffer because changing the flow rate effectively also changes the "content" of glucose in the flowing solution." The proffer is respectfully traversed in light of the amendments to the claims.

In order to support an obviousness rejection, it is necessary that Pfeiffer et al. provide some teaching, suggestion, or incentive to be modified as proffered by the rejection.

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Here, it is submitted that Pfeiffer et al. fails to teach or suggest a device comprising a control device in accordance with claims 1, 17, 18, and 26 respectively.

It is submitted that Pfeiffer et al. fail to disclose or suggest a device that adjusts the content of glucose in its perfusion solution (18) upstream of the microdialysis probe (12). In that regard, the Examiner's attention is directed, to Col. 1 line 59-62 (emphasis added) of Pfeiffer et al., where it is taught, "the perfusion solution is mixed with glucose . . . and a predetermined initial concentration *is set*". Further, at Col. 2 lines 1-6 (emphasis added), Pfeiffer et al. teach that, "subsequent perfusion solution . . . *essentially retains its initial glucose concentration*. Accordingly a base line reflecting the initial glucose concentration is picked up during the subsequent flow". Further, Pfeiffer et al. teach that its glucose concentration is set within the physiological range, for instance at 5 mmol/ltr. See, Column 4 lines 52-54.

Even if the flow rate of the solution (18) were adjusted as proffered by the rejection, it would not adjust the glucose content of the solution (18) upstream of the microdialysis probe (12). The glucose content of the solution (18) upstream of the microdialysis probe (12) would remain set.

As such, there is no disclosure or suggestion in Pfeifer et al. of a device comprising "a microdialysis probe . . . a perfusion device . . . a dialysate glucose content measuring cell located downstream of the microdialysis probe, and a control device, which adjusts the content of glucose in the perfusate upstream of the microdialysis probe to the glucose content of the tissue fluid in accordance with a command variable derived from the measurement signals of the measuring cell", as recited by amended claim 1.

Further, there is no disclosure or suggestion in Pfeifer et al. of a device comprising "a microdialysis probe, a perfusion device in communication with the microdialysis probe to perfuse the microdialysis probe with glucose-containing perfusate to obtain dialysate, a measuring cell being located downstream of the microdialysis probe, . . . and a control device, which adjusts the content of glucose in the perfusate upstream of the microdialysis probe to the glucose content of the tissue fluid in accordance with a command variable corresponding with the glucose concentration of the tissue fluid

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and being derived from the measurement signals of the measuring cell", as recited by amended claim 18.

Still further, there is no disclosure or suggestion in Pfeiffer et al. of a device comprising "a microdialysis probe inserted into the tissue fluid, at least two reservoirs for holding perfusion liquids with different glucose concentrations, a transport unit in communication with the microdialysis probe and the at least two reservoirs to perfuse the microdialysis probe with glucose-containing perfusate to obtain dialysate, a flow-through measuring cell located downstream of the microdialysis probe and formed to register measurement signals that correlate with the glucose content of the dialysate, and a control device in communication with the measuring cell, the control device having a flow mixer in communication with at least two reservoirs and with the microdialysis probe to act as an adjuster to regulate the content of glucose in the perfusate upstream of the microdialysis probe", as recited by amended claim 26..

Regarding claim 17, Pfeiffer et al. further fail to disclose or suggest a device that has "a flow mixer connected on an inlet side to the reservoirs and on an outlet side to the microdialysis probe". As shown in Fig. 1 of Pfeiffer et al., a perfusion solution (18) is pumped out of reservoir (20) through a perfusate line (21) *upstream* to microdialysis probe (12) while an enzyme solution (30) travels through line (28) to mixing station (32) *downstream* of the microdialysis probe (12).

There is no disclosure or suggestion in Pfeiffer et al. of a device comprising "a microdialysis probe inserted into the tissue fluid, at least two reservoirs for holding perfusion liquids with different glucose concentrations, a transport unit to perfuse the microdialysis probe with glucose-containing perfusate to obtain dialysate, a flow-through measuring cell located downstream of the microdialysis probe to register measurement signals that correlate with the glucose content of the dialysate, and a control device connected on an input side to the measuring cell, which control device has a flow mixer connected on an inlet side to the reservoirs and on an outlet side to the microdialysis probe, which acts as an adjuster to regulate the content of glucose in the perfusate upstream of the microdialysis probe", as recited by amended claim 17.

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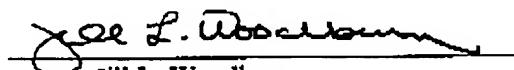
It is respectfully submitted that the differences between the claimed invention and the cited art are such that Applicants' invention as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made. It is respectfully contended that the claimed invention meets the test of patentability under 35 U.S.C. 103(a). Reconsideration of the rejection of the claims and withdrawal of the rejections leading to allowance of the claims is respectfully requested.

It is respectfully requested that, if necessary, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and all fees be charged to Deposit Account No. 50-0877 with reference to (18960 US1).

Respectfully submitted,
The Law Office of Jill L. Woodburn, L.L.C.

Sept. 28, 2006

Date



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